

Serial No. 10/786,679
Amendment Dated December 20, 2006
Reply to Office Action of September 26, 2006

Amendments to the Specification:

The Examiner has objected to the title as not descriptive. Please amend the title on page 1 of the specification as shown:

~~A PROMOTER LOCALIZED IN THE EMBRYO SURROUNDING REGION~~
PROMOTER FROM MAIZE INVERTASE INHIBITOR GENE

The Examiner has objected to the abstract as not sufficiently descriptive. Please amend the title and abstract on page 55 of the specification as shown:

~~A PROMOTER LOCALIZED IN THE EMBRYO SURROUNDING REGION~~
PROMOTER FROM MAIZE INVERTASE INHIBITOR GENE

ABSTRACT OF THE DISCLOSURE

The present invention provides compositions and methods for regulating expression of heterologous nucleotide sequences in a plant. Compositions include a novel nucleotide sequence for an ~~ESR-preferred promoter for the a tissue-preferred promoter for the Zea mays~~ gene encoding INVINH1. A method for expressing a heterologous nucleotide sequence in a plant using the promoter sequences disclosed herein is provided. The method comprises stably incorporating into the genome of a plant cell a polynucleotide operably linked to the ~~ESR-preferred~~ promoter of the present invention and regenerating a stably transformed plant that expresses the linked polynucleotide.

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The Examiner has requested appropriate use of trademarks. Please amend the specification as indicated below.

At Page 41, first full paragraph (lines 4-9):

Preparation of Target Tissue

The ears are husked and surface sterilized in 30% Clorox CLOROX® chlorine bleach plus 0.5% Micro detergent for 20 minutes, and rinsed two times with sterile water. The immature embryos are excised and placed embryo axis side down (scutellum side up), 25 embryos per plate, on 560Y medium for 4 hours and then aligned within the 2.5-cm target zone in preparation for bombardment.

At page 43, first paragraph (lines 2-14):

Bombardment and Culture Media

Bombardment medium (560Y) comprises 4.0 g/l N6 basal salts (SIGMA C-1416), 1.0 ml/l Eriksson's Vitamin Mix (1000X SIGMA-1511), 0.5 mg/l thiamine HCl, 120.0 g/l sucrose, 1.0 mg/l 2,4-D, and 2.88 g/l L-proline (brought to volume with D-I H₂O following adjustment to pH 5.8 with KOH); 2.0 g/l Gelrite GELRITE® agar substitute (added after bringing to volume with D-I H₂O); and 8.5 mg/l silver nitrate (added after sterilizing the medium and cooling to room temperature). Selection medium (560R) comprises 4.0 g/l N6 basal salts (SIGMA C-1416), 1.0 ml/l Eriksson's Vitamin Mix (1000X SIGMA-1511), 0.5 mg/l thiamine HCl, 30.0 g/l sucrose, and 2.0 mg/l 2,4-D (brought to volume with D-I H₂O following adjustment to pH 5.8 with KOH); 3.0 g/l Gelrite GELRITE® agar substitute (added after bringing to volume with D-I H₂O); and 0.85 mg/l silver nitrate and 3.0 mg/l bialaphos (both added after sterilizing the medium and cooling to room temperature).

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At page 43, second paragraph (lines 15-29):

Plant regeneration medium (288J) comprises 4.3 g/l MS salts (GIBCO 11117-074), 5.0 ml/l MS vitamins stock solution (0.100 g nicotinic acid, 0.02 g/l thiamine HCL, 0.10 g/l pyridoxine HCL, and 0.40 g/l glycine brought to volume with polished D-I H₂O) (Murashige and Skoog (1962) *Physiol. Plant.* 15:473), 100 mg/l myo-inositol, 0.5 mg/l zeatin, 60 g/l sucrose, and 1.0 ml/l of 0.1 mM abscisic acid (brought to volume with polished D-I H₂O after adjusting to pH 5.6); 3.0 g/l ~~Gelrite~~ GELRITE® agar substitute (added after bringing to volume with D-I H₂O); and 1.0 mg/l indoleacetic acid and 3.0 mg/l bialaphos (added after sterilizing the medium and cooling to 60°C). Hormone-free medium (272V) comprises 4.3 g/l MS salts (GIBCO 11117-074), 5.0 ml/l MS vitamins stock solution (0.100 g/l nicotinic acid, 0.02 g/l thiamine HCL, 0.10 g/l pyridoxine HCL, and 0.40 g/l glycine brought to volume with polished D-I H₂O), 0.1 g/l myo-inositol, and 40.0 g/l sucrose (brought to volume with polished D-I H₂O after adjusting pH to 5.6); and 6 g/l bacto-agar (added after bringing to volume with polished D-I H₂O), sterilized and cooled to 60°C.

At pages 46-47, paragraph spanning pages (page 46, line 26, through page 47, line 4):

Example 5: Sunflower Meristem Tissue Transformation Prophetic Example

Sunflower meristem tissues are transformed with an expression cassette containing the ESR-preferred promoter of the invention operably linked to a gene of interest as follows (see also European Patent Number EP 0 486233, herein incorporated by reference, and Malone-Schoneberg *et al.* (1994) *Plant Science* 103:199-207). Mature sunflower seed (*Helianthus annuus* L.) are dehulled using a single wheat-head thresher. Seeds are surface sterilized for 30 minutes in a 20% ~~Clorox~~ CLOROX® chlorine bleach solution with the addition of two drops of Tween 20 per 50 ml of solution. The seeds are rinsed twice with sterile distilled water.

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At pages 48-49, paragraph spanning pages (page 48, line 23, through page 49, line 5):

NPTII-positive shoots are grafted to Pioneer® hybrid 6440 *in vitro*-grown sunflower seedling rootstock. Surface sterilized seeds are germinated in 48-0 medium (half-strength Murashige and Skoog salts, 0.5% sucrose, 0.3% gelrite GELRITE® agar substitute, pH 5.6) and grown under conditions described for explant culture. The upper portion of the seedling is removed, a 1 cm vertical slice is made in the hypocotyl, and the transformed shoot inserted into the cut. The entire area is wrapped with parafilm to secure the shoot. Grafted plants can be transferred to soil following one week of *in vitro* culture. Grafts in soil are maintained under high humidity conditions followed by a slow acclimatization to the greenhouse environment. Transformed sectors of T₀ plants (parental generation) maturing in the greenhouse are identified by NPTII ELISA and/or by activity analysis of leaf extracts while transgenic seeds harvested from NPTII-positive T₀ plants are identified by activity analysis of small portions of dry seed cotyledon.